## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

Claim 1. (original) A compound of formula (I):

in which:

X is N, NH, :CH or CH<sub>2</sub>;

Y is N, :CH, CO,  $CH_2$  or : $CNR^2R^3$ , where  $R^2$  and  $R^3$  are independently hydrogen,  $C_{1-6}$  alkyl or  $C_{3-6}$  cycloalkyl;

R is aryl or heteroaryl optionally substituted by halogen, amino, hydroxy, cyano, nitro, trifluoromethyl, carboxy,  $CONR^5R^6$ ,  $SO_2NR^5R^6$ ,  $SO_2R^4$ ,  $NHSO_2R^4$ ,  $NHCOR^4$ , ethylenedioxy, methylenedioxy,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $SR^4$  or  $NR^5R^6$  where R4 is hydrogen,  $C_{1-6}$  alkyl or  $C_{3-6}$  cycloalkyl,  $R^5$  and  $R^6$  are independently hydrogen,  $C_{1-6}$  alkyl or together with the nitrogen atom to which they are attached form a 5- or 6-membered saturated ring optionally containing a further O, S or  $NR^4$  group;

or R is hydrogen,  $C_{1\text{-}6}$  alkyl or  $C_{3\text{-}6}$  cycloalkyl both of which can optionally contain one or more O, S or NR<sup>4</sup> groups,

 $R^1$  is a group  $Y(CH_2)pR^7$  where p is 0, 1 or 2 and Y is O or  $NR^8$  where  $R^8$  is hydrogen,  $C_{1\text{-}6}$  alkyl or  $C_{3\text{-}6}$  cycloalkyl;

and  $R^7$  is a 5- or 6-membered saturated ring containing one or more O, S or N atoms, aryl or a heteroaryl group containing one to four heteroatoms selected from O, S or N, the saturated ring, aryl and heteroaryl groups all being optionally substituted by halogen, amino, hydroxy, cyano, nitro, trifluoromethyl, carboxy,  $CONR^5R^6$ ,  $SO_2NR^5R^6$ ,  $SO_2R^4$ ,  $NHSO_2R^4$ ,  $NHCOR^4$ ,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkoxy,  $SR^4$  or  $NR^5R^6$  where R4 is hydrogen,  $C_{1-6}$  alkyl or  $C_{3-6}$  cycloalkyl,  $R^5$  and  $R^6$  are independently hydrogen,  $C_{1-6}$  alkyl or together with the nitrogen atom to which they are attached form a 5- or 6-membered saturated ring optionally containing a further O, S or  $NR^4$  group;

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or R<sup>1</sup> is a group NR<sup>9</sup>R<sup>10</sup> where R<sup>9</sup> and R<sup>10</sup> are independently hydrogen or C<sub>1-6</sub> alkyl optionally containing one or more O, S or NR<sup>4</sup> groups, or R<sup>9</sup> and R<sup>10</sup> together with the nitrogen atom to which they are attached form a 5 or 6-membered saturated ring optionally containing a further O, S or N atom and optionally substituted by NR<sup>9</sup>R<sup>10</sup>, CO<sub>2</sub>C<sub>1-6</sub> alkyl, CONR<sup>11</sup>R<sup>12</sup> where R<sup>11</sup> and R<sup>12</sup> are independently hydrogen or C<sub>1-6</sub> alkyl, aryl or heteroaryl group optionally substituted by halogen, amino, hydroxy, cyano, nitro, trifluoromethyl, carboxy, CONR<sup>5</sup>R<sup>6</sup>, SO<sub>2</sub>NR<sup>5</sup>R<sup>6</sup>, SO<sub>2</sub>R<sup>4</sup>, NHSO<sub>2</sub>R<sup>4</sup>, NHCOR<sup>4</sup>, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, SR<sup>4</sup> or NR<sup>5</sup>R<sup>6</sup> where R4 is hydrogen, C<sub>1-6</sub> alkyl or C<sub>3-6</sub> cycloalkyl, R<sup>5</sup> and R<sup>6</sup> are independently hydrogen, C<sub>1-6</sub> alkyl or together with the nitrogen atom to which they are attached form a 5- or 6-membered saturated ring optionally containing a further O, S or NR<sup>4</sup> group; and pharmaceutically acceptable salts or solvates thereof.

Claim 2. (original) A compound according to claim 1 in which X is N and Y is :CH, X and Y are:CH or X and Y are CH<sub>2</sub>

Claim 3. (currently amended) A compound according to claim 1. wherein or 2 in which R is  $C_{1-4}$ alkyl, or phenyl substituted by halogen,  $SO_2Me$ ,  $C_{1-6}$ alkoxy or  $C_{1-4}$ alkyl.

Claim 4. (currently amended) A compound according to any one of claims 1 to 3 claim 1, in which wherein  $R^1$  is a group  $Y(CH_2)pR^7$  where p is 0 and Y is  $NR^8$  where  $R^8$  is hydrogen and  $R^7$  is substituted phenyl.

Claim 5. (currently amended) A compound according to any one of claims 1 to 3 in which claim 1, wherein R<sup>1</sup> is NR<sup>9</sup>R<sup>10</sup> where R<sup>9</sup> and R<sup>10</sup> are hydrogen or C<sub>1-3</sub> alkyl or together with the nitrogen atom to which they are attached form a 5 or 6-membered saturated ring optionally containing a O, S or NR<sup>4</sup>.

Claim 6. (original) A compound of formula (I) selected from:

- 1-[9-(4-Chlorophenyl)-2-cyano-9H-purin-6-yl]-L-prolinamide,
- 9-(4-Chlorophenyl)-6-(4-pyrrolidin-1-ylpiperidin-1-yl)-9H-purine-2-carbonitrile,
- 9-(4-Chlorophenyl)-6-[(3-pyrrolidin-1-ylpropyl)amino]-9H-purine-2-carbonitrile,
- 6-(4-Aminopiperidin-1-yl)-9-(4-chlorophenyl)-9H-purine-2-carbonitrile,
- 6-[(2-Aminoethyl)amino]-9-(4-chlorophenyl)-9H-purine-2-carbonitrile,
- 9-(4-Chlorophenyl)-6-(dimethylamino)-9H-purine-2-carbonitrile,
- 9-(4-Methylphenyl)-6-pyrrolidin-1-yl-9H-purine-2-carbonitrile,
- 9-(4-Methoxyphenyl)-6-pyrrolidin-1-yl-9H-purine-2-carbonitrile,
- 9-(4-chlorophenyl)-6-pyrrolidin-1-yl-9H-purine-2-carbonitrile,
- 9-(4-Chlorophenyl)-6-(ethylamino)-9H-purine-2-carbonitrile,
- tert-Butyl 4-[9-(4-chlorophenyl)-2-cyano-9H-purin-6-yl]piperazine-1-carboxylate,
- 9-(4-Chlorophenyl)-6-piperazin-1-yl-9H-purine-2-carbonitrile,
- 9-(2-Chlorophenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile
- 9-(3,4-Difluorophenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 9-(4-Isopropylphenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 9-(4-Methoxyphenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 9-(3-Chlorophenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 9-[4-(Methylsulfonyl)phenyl]-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 6-[(4-Chlorophenyl)amino]-9-ethyl-9H-purine-2-carbonitrile,
- 9-(4-Chlorophenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 8-Amino-6-[(4-chlorophenyl)amino]-9-ethyl-9H-purine-2-carbonitrile,
- 8-Amino-9-(4-chlorophenyl)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 9-(4-Chlorophenyl)-6-morpholin-4-yl-8-oxo-8,9-dihydro-7H-purine-2-carbonitrile,
- 9-(4-Chlorophenyl)-8-(dimethylamino)-6-morpholin-4-yl-9H-purine-2-carbonitrile,
- 7-(4-Chlorophenyl)-4-morpholin-4-yl-7H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile,
- 7-(4-Chlorophenyl)-4-(ethylamino)-7H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile,
- 4-[(4-Chlorophenyl)amino]-7-ethyl-7H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile,
- 1-[7-(4-Chlorophenyl)-2-cyano-6,7-dihydro-5H-pyrrolo[2,3-d]pyrimidin-4-yl]-L-prolinamide,
- $\label{lem:condition} $$1-[2-Cyano-7-(4-methoxyphenyl)-6,7-dihydro-5H-pyrrolo[2,3-d]pyrimidin-4-yl]-L-prolinamide,$
- 7-(4-Methoxyphenyl)-4-pyrrolidin-1-yl-6,7-dihydro-5H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile,
- 7-(4-Methoxyphenyl)-4-morpholin-4-yl-6,7-dihydro-5H-pyrrolo[2,3-d]pyrimidine-2-carbonitrile,
- 1-(4-Methylphenyl)-4-morpholin-4-yl-1H-pyrazolo[3,4-d]pyrimidine-6-carbonitrile, and pharmaceutically acceptable salts thereof.

Claim 7. (cancelled)

Claim 8. (cancelled)

Claim 9. (cancelled)

Claim 10. (currently amended) A pharmaceutical composition which comprises a compound of the formula (I) as defined in any one of claims 1 to 6claim 1 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable diluent or carrier.

Claim 11. (currently amended) A method for producing inhibition of a cysteine protease in a mammal, such as man, in need of such treatment, which comprises comprising administering to said mammal an effective amount of a compound as defined in any one of claims 1 to 6 claim 1, or a pharmaceutically acceptable salt thereof.

Claim 12. (currently amended) A method for treating pain, such as neuropathic pain, in a mammal, such as man, in need of such treatment, which comprises comprising administering to said mammal an effective amount of a compound as defined in any one of claims 1 to 6 claim 1, or a pharmaceutically acceptable salt thereof.

Claim 13. (currently amended) Use of A method for inhibiting Cathepsin S in a warm blooded animal comprising administering a compound of the formula (I) as defined in any one of claims 1 to 6 claim 1 or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for use in the inhibition of Cathepsin S into a warm blooded animal, such as man.